

IN THE CLAIM

1 1. (Currently Amended) A method for allowing a device to be removably attached to a
2 computer system while maintaining the system integrity, comprising the steps of:
3 configuring a bridge between the device and the computer system; wherein
4 while in an attached state
5 if recognizing that the device has been removed from the
6 bridge, then the bridge transitioning into a cleanup
7 state, then a removed state;
8 while in the cleanup state, performing the ordered steps of
9 the bridge sending a first signal to the computer system;
10 in response to the first signal, the computer system sending
11 a second signal to the bridge; and
12 in response to the second signal, the bridge sending a third
13 signal to the computer system to indicate that the
14 bridge device has been removed from the computer
15 system;
16 removing the device from the bridge is performed without giving
17 prior notice to the bridge, nor the computer system;
18 the attached state indicating that the device has been attached to the
19 computer system; and
20 the removed state indicating that the device has been removed from
21 the computer system.

- 1 2. (Original) The method of Claim 1 wherein the bridge using a first protocol to
2 communicate with the computer system, and using a second protocol to
3 communicate with the device.
- 1 3. (Original) The method of Claim 2 wherein the first protocol or the second protocol is:
2 a protocol complying with the SCSI standard;
3 a protocol complying with the IDE standard;
4 a protocol complying with the fibre channel standard;
5 a protocol complying with the IEEE 1394 standard; or
6 a protocol complying with the USB standard.
- 1 4. (Original) The method of Claim 2 wherein the bridge includes a processing unit and
2 memory to convert commands of the first protocol and the second protocol.
- 1 5.(Original) The method of Claim 2 wherein the first protocol is the same as the
2 second protocol.
- 1 6. (Original) The method of Claim 1 wherein, while in the cleanup state, if the bridge
2 receives a processing command, then the bridge sends a fourth signal to the
3 computer system indicating that the bridge cannot process the command.
- 1 7. (Original) The method of Claim 6 wherein, while in the cleanup state, the bridge
2 further sends a fifth signal to the computer system indicating that the command
3 has been terminated.

1 8. (Original) The method of Claim 7 wherein, while in the cleanup state, the computer
2 system, upon receiving the fourth or the fifth signal from the bridge, provides a
3 sixth signal to indicate that the command cannot be processed.

1 9. (Original) The method of Claim 1 further comprising the step of providing a buffer
2 between the device and the bridge for protecting the bridge from disruption signals
3 from the device.

1 10. (Original) The method of Claim 1 further comprising the step of providing a buffer
2 between the device and the bridge wherein the buffer prevents the signals passing
3 from the device to the bridge.

1 11. (Original) The method of Claim 10 wherein the bridge transitioning to the cleanup
2 state upon recognizing that the bridge cannot communicate with the device via the
3 buffer.

1 12. (Original) The method of Claim 1 wherein:
2 the bridge recognizes that the device has been removed from the bridge
3 based on a signal asserted at a control pin of the bridge; and
4 the signal changes when the control pin of the bridge is engaged to or
5 disengaged from a control pin of the device.

1 13.(Currently Amended) A system for allowing a device to be removably attached to a
2 computer system while maintaining the system integrity, comprising:
3 a bridge interfacing between the device and the computer system;
4 wherein

5 while in an attached state
6 if recognizing that the device has been removed from the
7 bridge, then the bridge transitioning into a cleanup
8 state, then a removed state;
9 while in the cleanup state
10 the bridge sending a first signal to the computer system;
11 in response to the first signal, the computer system sending
12 a second signal to the bridge; and
13 in response to the second signal, the bridge sending a third
14 signal to the computer system to indicate that the
15 bridge device has been removed from the computer
16 system;
17 removing the device from the bridge is performed without giving
18 prior notice to the bridge, nor the computer system;
19 the attached state indicating that the device has been attached to the
20 computer system; and
21 the removed state indicating that the device has been removed from
22 the computer system.

1 14. (Original) The system of Claim 13 wherein the bridge using a first protocol to
2 communicate with the computer system, and using a second protocol to
3 communicate with the device.

1 15. (Original) The system of Claim 14 wherein the first protocol or the second protocol
2 is:
3 a protocol complying with the SCSI standard;

- 4 a protocol complying with the IDE standard;
- 5 a protocol complying with the fibre channel standard;
- 6 a protocol complying with the IEEE 1394 standard; or
- 7 a protocol complying with the USB standard.

1 16. (Original) The system of Claim 13 wherein the bridge includes a processing unit and
2 memory to convert commands of the first protocol and the second protocol.

1 17. (Original) The system of Claim 13 wherein the first protocol is the same as the
2 second protocol.

1 18. (Original) The system of Claim 13 wherein, while in the cleanup state, if the bridge
2 receives a processing command, then the bridge sends a fourth signal to the
3 computer system indicating that the bridge cannot process the command.

1 19.(Original) The system of Claim 18 wherein, while in the cleanup state, the bridge
2 further sends a fifth signal to the computer system indicating that the command
3 has been terminated.

1 20.(Original) The system of Claim 19 wherein, while in the cleanup state, the computer
2 system, upon receiving the fourth or the fifth signal from the bridge, provides a
3 sixth signal to indicate that the command cannot be processed.

1 21. (Original) The system of Claim 13 further comprising a buffer between the device
2 and the bridge for protecting the bridge from disruption signals from the device.

1 22. (Original) The system of Claim 13 further comprising a buffer between the device
2 and the bridge wherein the buffer prevents the signals passing from the device to
3 the bridge.

1 23. (Original) The system of Claim 22 wherein the bridge transitions to the cleanup state
2 upon recognizing that the bridge cannot communicate with the device via the
3 buffer.

1 24. (Original) The system of Claim 13 wherein:
2 the bridge recognizes that the device has been removed from the bridge
3 based on a signal asserted at a control pin of the bridge; and
4 the signal changes when the control pin of the bridge is engaged to or
5 disengaged from a control pin of the device.

1 25. (Currently Amended) A method for hot removing a device from a system, comprising
2 the steps of:
3 configuring a bridge between the device and the system; and
4 configuring a buffer between the device and the bridge for protecting the
5 bridge from signals from the device; wherein
6 while in an attached state
7 if recognizing that the device has been removed from the
8 bridge, then the bridge transitioning into a cleanup
9 state, then a removed state;
10 while in the cleanup state,
11 the bridge sending a first signal to the system;

12 in response to the first signal, the system sending a second
13 signal to the bridge; and
14 in response to the second signal, the bridge sending a third
15 signal to the system to indicate that the ~~bridge~~
16 device has been removed from the system.